In re: Ronaldo RIBEIRO DUARTE
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Page 10 of 10

SYSTEM OF CONTROLLING AND TRIGGERING A TRIAC AND A METHOD OF CONTROLLING THE TRIGGERING OF A TRIAC

ABSTRACT OF THE DISCLOSURE

Disclosed is a system and method of controlling and triggering a TRIAC by actuating a load with any power factor from a single short-duration pulse at the gate of the TRIAC. The TRIAC comprising a gate, the TRIAC being connected to a load, the gate being electrically connected to a control unit, which actuates the TRIAC for selectively applying a network voltage to the load and enabling the circulation of an electric current in the load, the system comprising a gate voltage detection unit, a control unit, the gate voltage detection unit being electrically connected to a control unit, the control unit establishing a gate voltage limit value and generating a pulse at the gate of the TRIAC to keep it in conduction, the pulse at the gate being generated from a comparison between the voltage limit value established by the control unit and a voltage measured at the gate from the gate voltage detection unit, the control unit measuring the electric current and adjusting the voltage limit value in a way proportional to the current value measured.